

Notice of Allowability	Application No.	Applicant(s)	
	09/615,726	CARTER ET AL.	
	Examiner	Art Unit	
	Lamont M Spooner	2654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/02/2005.
2. ☒ The allowed claim(s) is/are 1-27 and 29-41.
3. ☒ The drawings filed on 13 July 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>4/16/01, 2/12/01</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input checked="" type="checkbox"/> Other <u>IDS-Mail date: 11/17/04</u> . |

DETAILED ACTION
EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with applicant's representative Ariel S. Rogson, 4/27/2003. ~~2003~~ 2005^{LS}

Amend the application as follows:

In the claims:

In claim 17, page 5, line 11 after "in" change "the" to - **a** -.

In claim 23, page 6, line 12, after "in" change "the" to - **a** -.

In claim 23, page 6, line 16, after "into" change "the" to - **a** -.

In claim 32, page 9, line 3, after "document," change "the dominant phrases" to -
-the dominant phrases for the second document- -.

In claim 33, page 9, line 3, after "document," change "the dominant phrases" to -
-the dominant phrases for the second document- -.

In claim 39, page 10, line 1, after "claim" change "12" to - - 23 - -.

Allowable Subject Matter

1. Claims 1-27, and 29-41 are allowed.

The following is an examiner's statement of reasons for allowance:

Art Unit: 2654

2. As per **claims 1, 5, 11, 23, 25 and 29**, the instant application is deemed to be a non-obvious improvement over the invention presented in US Patent No. 5,619,709, Caid et al.

As per claims 1, 5, 23, and 29, the improvement comprises identifying a directed set of concepts as a dictionary, the directed set including a maximal element and at least one concept, and at least one chain from the maximal element to every concept, selecting a subset of chains to form a basis for the dictionary, measuring how concretely each dominant phrase is represented in each chain in the basis, as taught in the specification, and the dictionary, and constructing at least one state vector in the topological vector space for each dominant phrase using the measures of how concretely each dominant phrase is represented in each chain in the dictionary and the basis.

Claim 11, includes an improvement of identifying a directed set of concepts as a dictionary, the directed set including a maximal element and at least one concept, and at least one chain from the maximal element to every concept, selecting a subset of chains to form a basis for the dictionary, measuring how concretely each dominant phrase is represented in each chain in the basis, as taught in the specification, and the dictionary, and constructing dominant phrase vectors in the topological vector space for the dominant phrases using the measures of how concretely each dominant phrase is represented in each chain in the dictionary and the basis.

Claim 25, includes an improvement of having state vectors measuring how concretely each phrase extracted by a phrase extractor is represented in each chain in

a basis and a dictionary, the dictionary including a directed set of concepts including a maximal element and at least one chain from the maximal element to every concept in the directed set, the basis, as taught in the specification, including a subset of chains in the directed set.

3. **Claims 2-4, 6-10, 12-22, 24, 26,27, and 30-41** further limit their parent claims and therefore are allowed.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

5. Claims 1-27, and 29-41, have been renumbered as claims 1-40.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Liddy et al. (US 6,006,221) teaches identifying a set of concepts a dictionary, the set including a parent/maximal element and at least one concept, and at least one link from the maximal element to a concept.
- Au (US 5,937,400) teaches identifying a directed set of concepts as a dictionary, the directed set including a maximal element and at least one concept, and at least one chain from the maximal element

to every concept, and measuring how concretely each phrase is represented in each chain in the basis and the dictionary.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lamont M Spooner whose telephone number is 571/272-7613. The examiner can normally be reached on 8:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on 571/272-7602. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

lms
04/26/05


RICHEMOND DORVIL
SUPERVISORY PATENT EXAMINER